

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833
(916) 274-5721
FAX (916) 274-5743
www.dir.ca.gov/oshsb

**TITLE 8. CALIFORNIA CODE OF REGULATIONS**

Telecommunication Safety Orders

Section 8615(g)

(Published on November 30, 2018)

Fall Protection in Telecommunications

NOTICE IS HEREBY GIVEN that the Occupational Safety and Health Standards Board (Board) proposes to adopt, amend or repeal the foregoing provisions of Title 8 of the California Code of Regulations in the manner described in the Informative Digest, below.

PUBLIC HEARING

The Board will hold a public hearing starting at 10:00 a.m. on **January 17, 2019** in the **Council Chambers** of the **Rancho Cordova City Hall, 2729 Prospect Park Drive, Rancho Cordova, California**. At this public hearing, any person may present statements or arguments orally or in writing relevant to the proposed action described in the Informative Digest.

WRITTEN COMMENT PERIOD

In addition to written or oral comments submitted at the public hearing, written comments may also be submitted to the Board's office. The written comment period commences on **November 30, 2018** and closes at 5:00 p.m. on **January 17, 2019**. Comments received after that deadline will not be considered by the Board unless the Board announces an extension of time in which to submit written comments. Written comments can be submitted as follows:

By mail to Sarah Money, Occupational Safety and Health Standards Board, 2520 Venture Oaks Way, Suite 350, Sacramento, CA 95833; or

By fax at (916) 274-5743; or

By e-mail sent to oshsb@dir.ca.gov.

AUTHORITY AND REFERENCE

Labor Code Section 142.3 establishes the Board as the only agency in the State authorized to adopt occupational safety and health standards. In addition, Labor Code Section 142.3 requires the adoption of occupational and health standards that are at least as effective as federal occupational safety and health standards.

INFORMATIVE DIGEST OF PROPOSED ACTION/ POLICY STATEMENT OVERVIEW

On November 18, 2016, Federal OSHA revised 29 Code of Federal Regulations (29 CFR), Part 1910, Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems) including Section 1910.268, Telecommunications. Unlike Title 8, Section 8615(g), the revised Section 1910.268(g) does not contain an exception for point-to-point travel on poles, towers, or similar structures. To ensure equivalent safety to that contained in Section 1910.268(g)(1), Title 8, Telecommunication Safety Orders (TSO), Section 8615 is being amended to clarify that qualified telecommunication workers must use fall protection when traveling point-to-point on poles, towers, or similar structures, with the exception of when the employer demonstrates that fall protection is infeasible or creates a greater hazard, and provides fall injury risk control equivalent in effectiveness to that provided by Section 8615(g)(1).

Section 8615 also is being amended to include a cross reference to Section 1670 of the Construction Safety Orders (CSO) for applicable personal fall arrest, work positioning, and fall restraint system requirements, and Section 2940.6(c) of the Electrical Safety Orders (ESO) for linemen's body belts.

Anticipated Benefits

This proposal is expected to improve safety for employees who perform point-to-point travel or work at elevated locations on telecommunication poles, towers, and similar structures. The following specific benefits are anticipated:

- The reduction in employee fall risk, falls from elevations, and resulting injuries/fatalities in the telecommunication industry.
- The preservation of an exception recognizing that use of a personal fall protection system may not always be feasible during point-to-point travel, while expressly clarifying that equivalently effective fall injury risk control measures would be required.
- Clarity enhancing uniformity between certain personal fall protection terminology used in the TSO and that of the CSO.
- The use of linemen's body belts typically designed with two attachment points and regulated by the High-Voltage Electrical Safety Orders for climbing poles, towers and similar structures is recognized.

Section 8615. Overhead Lines. **Subsection (g). Fall Protection.**

Existing Section 8615(g) provides requirements for fall protection when work is performed on poles, towers, or similar structures in the telecommunications industry. Section 8615(g) requires employee use of fall protection equipment when work is performed at positions more than 4 feet above ground, on poles, towers, or similar structures, if other methods of fall protection are not

provided. Existing Section 8615(g) provides an exception for point-to-point travel by a qualified person without fall protection equipment, unless conditions such as ice, high winds, design of the structure, or other conditions prevent the employee from gaining a firm hand or foothold while traveling. This exception is not commensurate with 29 CFR 1910.268(g)(1), the newly revised federal standard for personal climbing equipment in telecommunications since the federal standard does not provide an exception for point-to-point travel.

In addition, the revised federal standard adds a requirement for the personal fall arrest and positioning systems to meet the applicable requirements in 29 CFR 1910, Subpart I, the federal standard for personal protective equipment. A change to the counterpart state standard, Section 8615(g), would add a reference to equipment-specific Title 8 requirements for the fall arrest and work positioning systems.

This proposal renders Section 8615(g) more clearly commensurate with the federal standard, and provides the required protection to California employees who perform point-to-point travel on telecommunication poles, towers, or similar structures.

The specific changes are as follows:

- The deletion of the exception that allows for point-to-point travel without fall protection unless conditions are present that prevent the employee from gaining a firm hand or foothold while traveling.
- The addition of a new subsection (g)(2) that specifically requires the use of fall protection for qualified telecommunications workers climbing or changing locations on poles, towers, or similar structures.
- The addition of an exception that allows for fall injury risk control measures equivalent in effectiveness to fall protection. Recognizing that it is not always possible to use personal fall protection systems while climbing and descending, the proposed changes allow employers to take alternative measures as effective as conventional fall protection methodologies to control fall injury risk. Alternatives to conventional fall protection methods that control the fall risk include, but are not limited to: use of a pole/tower climbing fall protection plan approved by the Division of Occupational Safety and Health; positive control for safe access as provided by General Industry Safety Orders, Section 3270.1, Rope Access standards; use of linemen's body belts; installation and use of sufficient hand and footholds; use of aerial devices; or any combination thereof.
- The addition of requirements that personal fall protection systems meet the applicable requirements in Section 1670 of the CSO, and that linemen's body belts (typically designed with two attachment points) for climbing poles, towers and similar structures, meet the requirements of the ESO. Requiring that personal fall protection systems meet the existing state standards in CSO, Section 1670 and ESO, Section 2940.6(c) ensures that only adequate and properly functioning personal fall protection systems and components are used by the employees. In addition, the labeling and inspection requirements in Section 1670 prevent the use of defective equipment. Use of adequate

and properly functioning personal fall protection systems and components will result in improvement in fall safety and reduction in employee fall risk. This requirement will also make the California standard more clearly commensurate with the new federal standard.

- The use of the word "system" in place of the word "equipment", and the use of the phrase "fall restraint system" in place of the phrase "travel restricting equipment". This proposal makes the terminology used for means of fall protection consistent with those in the CSO and the new federal standard. Such consistency will enhance safety communication and improve safety by having employees use the same fall protection systems, and follow the similar practices in telecommunications or construction works.
- The relocation of the regulatory language prohibiting the use of body belts as part of a fall arrest system as a new subsection. This proposed relocation adds clarity to the requirement making it more easily understandable.

The Board evaluated the proposed regulation pursuant to Government Code Section 11346.5(a)(3)(D) and has determined that the regulation is not inconsistent or incompatible with existing state regulations. This proposal is part of a system of occupational safety and health regulations. The consistency and compatibility of that system's component regulations is provided by such things as: (1) the requirement of the federal government and the Labor Code to the effect that the state regulations be at least as effective as their federal counterparts, and (2) the requirement that all state occupational safety and health rulemaking be channeled through a single entity (the Standards Board).

DISCLOSURES REGARDING THE PROPOSED ACTION

Mandate on Local Agencies and School Districts: None.

Cost or Savings to State Agencies: None.

Cost to Any Local Government or School District Which Must be Reimbursed in Accordance with Government Code Sections 17500 through 17630: None.

Other Nondiscretionary Cost or Savings Imposed on Local Agencies: None.

Cost or Savings in Federal Funding to the State: None.

Cost Impacts on a Representative Private Person or Business:

The U.S. Bureau of Labor Statistics (BLS) provides employment data for several telecommunication occupations; however, it does not specify exactly how many employees climb poles, towers, or similar structures in telecommunications. Board staff believes the following occupations employ the majority of the climbers in California:

- Telecommunications Line Installers and Repairers

- Telecommunications Equipment Installers and Repairers, Except Line Installers
- Radio, Cellular, and Tower Equipment Installers and Repairers

Board staff asked several stakeholders for information needed to calculate the total number of potential climbers who do not use personal fall protection systems, but complete data could not be obtained. Employment data specific to climbing on telecommunications poles, towers, or similar structures is also not available at the U.S. Bureau of Labor Statistics (BLS). Board staff is using available BLS data, the Federal Final Rule on Working/Walking Surfaces (Federal Register, Volume 81, No. 223, November 18, 2016), and stakeholder information to estimate the number of climbers and the cost of the proposed rulemaking.

Almost all of the telecommunications line installers and repairers, and the radio, cellular, and tower equipment installers and repairers, and a percentage of the telecommunications equipment installers and repairers perform jobs that involve climbing. Most of these climbers climb the telecommunication poles and a small portion of climbers climb the towers. The tower climbers usually have the equipment and training for climbing, whereas the pole climbers may not have all of the necessary fall protection equipment, particularly the fall restricting pole straps or similar fall protection equipment. As a result, the telecommunications climbers impacted by the proposed rulemaking are primarily the pole climbers. Since the number of pole climbers could not be determined from the BLS data, Board staff contacted the stakeholders for the data.

Three employers, AT&T, Frontier, and Consolidated provided some employment data on the climbers. The Communications Workers of America (CWA) provided data for AT&T and Frontier and an estimate for the other California employers in telecommunications. According to CWA, AT&T has 11,500 climbers and 5,664 (49%) would still need to be provided with new fall protection training and equipment as a result of the proposed rulemaking. Frontier, another large employer, has over 1,300 climbers, and would need to provide training and equipment for approximately 1,200 (91%) climbers. Consolidated has approximately 75 climbers and all of their climbers already have the necessary fall protection training and equipment. Board staff estimate these three largest employers have approximately 12,935 potential climbers in total, and out of these climbers 6,864 climbers would need to be provided with training and new equipment. Using these numbers, staff calculates the percent of climbers needing training and new equipment to be approximately 53% ($6,864 / 12,935$, rounded.)

Board staff believes other California employers (e.g. Charter, CenturyLink, Verizon, and Comcast) will also have climbers who need additional training and new fall protection equipment due to the proposed requirement. Board staff requested climber data from several employers and CWA; however, complete data was not available. CWA estimates the other employers (contractors for AT&T and Frontier) to have 5-10% of climbers that may need training and new equipment. In absence of complete data, it is estimated that the other telecommunication employers may have approximately 1,294 (10% of 12,935 which is the total for AT&T, Frontier, and Consolidated combined) pole climbers in total. Assuming that 53% of these climbers may need the training and new equipment, the estimated number of climbers needing training and equipment is calculated to be 686 (53% of 1,294.)

Staff learned from CWA that cable companies may also have pole climbers that may need to be provided with training and new equipment. The List of Occupations Employed in Cable and

Other Programming provided on the California Employment Development Department (EDD) website shows the number of telecommunications line installers and repairers in California cable companies and other subscription industries to be around 300. Staff considers these employees as potential climbers, and assuming 53% of these climbers may need the training and new equipment, calculates the number of climbers needing training and new equipment to be 159 (53% of 300.)

Using the above estimates and calculations, Board staff estimates the total number of pole climbers in California to be approximately 14,500 and those needing training and new equipment for climbing to be approximately 7,700 (6,864 for AT&T, Frontier and Consolidated + 686 for other telecommunications employers + 159 for cable companies = 7,700, rounded). As a result, staff uses 7,700 as the number of impacted employees for the calculation of the cost of compliance.

Line workers must be adept at climbing poles when necessary and training on the use of personal fall protection equipment during pole climbing is typically provided to all line workers. CWA and AT&T stated that training is required for all pole climbers and one set of personal fall protection equipment needs to be provided to each climber. Due to changing job sites and conditions, individual fall protection equipment is provided to all employees who work on poles.

The cost of the rulemaking will be comprised of the costs for new equipment and training. Board staff estimates the cost of new equipment to be approximately \$2,849,000 (7,700 x \$370). The cost of training is estimated using information provided in the Federal Final Rule (FFR) on electric power generation, transmission, and distribution (Federal Register, Vol. 79, No. 70, Friday, April 2014, page 20591) because the hazards encountered during point-to-point travel on telecommunication poles and towers are similar to those encountered on electrical poles and towers. The FFR used \$52 per impacted employee as the cost of training for fall protection during point-to-point travel. Using the consumer price index (16.6% for 2009-2017), and an adjustment for higher California wages (106.065%), Board staff estimates the cost per employee for the new training to be approximately \$64 (\$52 x 116.6% x 106.065%). Thus, the total cost of training is estimated to be \$492,800 (7,700 x \$64), and the total cost of the proposed regulation is estimated to be \$3,341,800 (\$2,849,000 + \$492,800) for California employers.

The Federal Register containing the Final Rule on Working/Walking Surfaces and Personal Protective Equipment (Fall Protection Systems), Volume 81, No. 223, November 18, 2016, indicates on page 82873 that compliance is economically feasible in every affected industry sector and it is not expected to threaten viability, existence, or competitiveness of entities. As the telecommunication industry is within the scope of the Final Rule, Board staff expects this proposal to be economically feasible for California employers.

The Federal Register containing the Final Rule for Electric Power Generation, Transmission, and Distribution (Volume 79, No. 70, April 11, 2014) mentions on page 20582 that the estimated monetized benefit associated with the climbing fall protection part of the Final Rule is higher than the cost associated with it. As the workers performing point-to-point travel on electrical and telecommunications structures are exposed to similar hazards, Board staff estimates the monetized benefit and cost associated with the fall protection for point-to-point travel in

telecommunications to follow a similar pattern; therefore, this proposal is not expected to have any negative economic/cost impact on California employers.

**Statewide Adverse Economic Impact Directly Affecting Businesses and Individuals:
Including the Ability of California Businesses to Compete:**

The Board has made an initial determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses/individuals, including the ability of California businesses to compete with businesses in other states.

This proposal is expected to reduce serious injuries and fatalities by reducing falls of employees climbing poles, towers, or similar structures to perform telecommunication work and to bring California into compliance with the federal standards. The cost of compliance with the proposal for California employers is expected to be less than the monetized benefit due to the reduction in serious injuries and fatalities.

Significant Effect on Housing Costs: None.

SMALL BUSINESS DETERMINATION

The Board has determined that the proposed amendments may affect small businesses. However, no negative economic/cost impact is anticipated.

Per Table of Small Business Size Standards published by the federal government at https://www.sba.gov/sites/default/files/files/Size_Standards_Table.pdf, only the employers having less than 1,500 employees may be considered small businesses among wired and wireless telecommunications carriers and telecommunications resellers. Employers engaged in satellite telecommunications and other telecommunications are considered small business if they have less than 1,000 employees. Therefore, the vast majority of telecommunications employers are small businesses. A report compiled by the California Public Utilities Commission (CPUC) shows only six employers having 750+ employees engaged in telephone and video media works. Based on this report and stakeholder input, Board staff believes the total number of large employers is approximately six. The United States Census Bureau shows that the total number of California telecommunication firms engaged in wired, wireless, and satellite communication works as 623; therefore, Board staff estimates the total number of small businesses engaged in similar works to be approximately 617. The cost of compliance for a small business, on average, is expected to be approximately \$1,625.

**RESULTS OF THE ECONOMIC IMPACT
ASSESSMENT/ANALYSIS**

The proposed regulation is not expected to have any effect on the creation or elimination of California jobs or the creation of new businesses or the elimination of existing California businesses or affect the expansion of existing California businesses. This proposal is also not expected to impact the ability of California businesses to compete with businesses in other states. Additionally, the changes proposed for Section 8615(g) are expected to be economically feasible

and not result in any significant economic impact. (For specific details, refer to the Cost Impact on a Representative Private Person or Business).

BENEFITS OF THE PROPOSED ACTION

This proposal is expected to reduce catastrophic falls of employees who climb poles, towers, or similar structures to perform telecommunication work. A reduction in falls leads to fewer serious injuries and fatalities among employees. When the employers ensure the use of properly functioning personal fall protection systems, or take measures to control employee fall risk when the personal fall protection system is not feasible or hazard creating, the employee fall risk is further reduced.

CONSIDERATION OF ALTERNATIVES

In accordance with Government Code Section 11346.5(a)(13), the Board must determine that no reasonable alternative it considered to the regulation or that has otherwise been identified and brought to its attention would either be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provision of law than the proposal described in this Notice.

The Board invites interested persons to present statements or arguments with respect to alternatives to the proposed regulation at the scheduled public hearing or during the written comment period.

CONTACT PERSONS

Inquiries regarding this proposed regulatory action may be directed to Lara Paskins (Staff Services Manager I) and the back-up contact person is Michael Manieri (Principal Safety Engineer) at the Occupational Safety and Health Standards Board, 2520 Venture Oaks Way, Suite 350, Sacramento, CA 95833; (916) 274-5721.

AVAILABILITY OF STATEMENT OF REASONS, TEXT OF THE PROPOSED REGULATION AND RULEMAKING FILE

The Board will have the entire rulemaking file available for inspection and copying throughout the rulemaking process at its office at the above address. As of the date this notice is published in the Notice Register, the rulemaking file consists of this notice, the proposed text of the regulation, the Initial Statement of Reasons, supporting documents, or other information upon which the rulemaking is based. Copies may be obtained by contacting Ms. Paskins or Mr. Manieri at the address or telephone number listed above.

AVAILABILITY OF CHANGED OR MODIFIED TEXT

After holding the hearing and considering all timely and relevant comments received, the Board may adopt the proposed regulation substantially as described in this notice. If the Board makes modifications which are sufficiently related to the originally proposed text, it will make the modified text (with the changes clearly indicated) available to the public at least 15 days before the Board adopts the regulation as revised. Please request copies of any modified regulation by contacting Ms. Paskins or Mr. Manieri at the address or telephone number listed above. The Board will accept written comments on the modified regulation for at least 15 days after the date on which they are made available.

AVAILABILITY OF THE FINAL STATEMENT OF REASONS

Upon its completion, copies of the Final Statement of Reasons may be obtained by contacting Ms. Paskins or Mr. Manieri at the address or telephone number listed above or via the internet.

AVAILABILITY OF DOCUMENTS ON THE INTERNET

The Board will have rulemaking documents available for inspection throughout the rulemaking process on its website. Copies of the text of the regulation in an underline/strikeout format, the Notice of Proposed Action and the Initial Statement of Reasons can be accessed through the Standards Board's website at <http://www.dir.ca.gov/oshsb>.